WHAT IS CLAIMED IS

1. A gas turbine in which a rotor shaft comprises a plurality of discs each having a plurality of moving blades driven by combustion gas and arranged annularly on the peripheral portion, and spacers arranged between said discs, said respective discs and spacers being arranged in the axial direction in turn, characterized in that

gap portions are formed between rotor axis side regions of said discs facing said spacers and adjacent spacers;

contact surfaces contacting each other on both rotor peripheral side regions of said discs facing said spacers and adjacent spacers are formed; and

a third flow path for introducing fluid into said gap portions is formed in said discs.

2. A gas turbine according to claim 1, characterized in that

said third flow path is arranged so as to pass axially through regions forming said contact surfaces of said discs, and a plurality of said third flow paths are provided.

3. A gas turbine according to claim 1, characterized in that

said third flow path is arranged to pass through said gap portions of said discs in the rotor axis

direction; and

a plurality of said third flow paths are provided.

4. A gas turbine according to claim 1, characterized in that

said moving blades are provided with flow paths introducing coolant for cooling and discharging the coolant heated by the combustion gas;

a supply flow path for supplying the coolant for cooling into said discs and spacers of said rotor; and

said third flow path is arranged so as to communicate said gap portions and said supply flow path or said recovery flow path.

5. A gas turbine according to claim 1, characterized in that

a flow path for discharging the fluid passed through said gap portions in a gas flow path in which the combustion gas at the rotor peripheral side flows down is provided for at least one of said discs and said spacers.

6. A gas turbine according to claim 1, characterized in that

said moving blades are provided with an inside flow path for introducing coolant for cooling and directly discharging the coolant heated by the combustion gas into combustion gas, and a flow path leading the fluid passed through said gap portions into said inside path inside said

moving blades is provided, said fluid is used as a coolant for said moving blades.

7. A gas turbine according to claim 1, characterized in that a fourth flow path passing through said discs and spacers in the rotor axis direction for leading a fluid of lower temperature than the combustion gas flowing inside the gas turbine is arranged so as to be positioned more radially outward than said third flow path.

8. A gas turbine in which a rotor shaft comprises a plurality of discs each having a plurality of moving blades driven by combustion gas and arranged annularly on the peripheral portion, and spacers arranged between said discs, said respective discs and spacers being arranged in the axial direction in turn, and said moving blades are provided with flow paths for introducing coolant for cooling and discharging the coolant having heated by the combustion gas, characterized in that

contact surfaces contacting both said discs in rotor peripheral side regions and adjacent spacers are formed therebetween; and

a supply flow path passing through said discs and spacers in the regions forming said contact surfaces and supplying said coolant for cooling moving blades, and a recovery flow path for recovering the coolant heated through said moving blades.

9. A gas turbine according to claim 8, characterized in that said recovery flow path is arranged so as to be positioned more radially outward than said supply flow path.

10. A gas turbine according to claim 8, characterized in that said recovery flow path is arranged so as to be positioned more radially inwards than said supply flow path.